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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,607	03/17/2004	Kyle D. Lawrence	P2003J024 US2	4984

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EXAMINER

LANG, AMY T

ART UNIT	PAPER NUMBER
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1714

DATE MAILED: 09/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/802,607

Applicant(s)

LAWRENCE ET AL.

Examiner

Amy T. Lang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☒ Claim(s) 1-3 and 6 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>8-30-2004</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Objections

1. Claim 2 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 1, from which claim 2 is dependent, recites "a hydraulic oil composition," which implies that only one composition is claimed. However, it is the examiner's position that claim 2 then claims seven distinct compositions, each with a separate ISO grade ranging from ISO 15 to ISO 150. The evidence for this is present in the table, which has been improperly included in claim 2. In order to produce each ISO grade a different blend of paraffinic oils is required which therefore implies separate compositions.
2. Claim 6 is objected to because of the following informalities: Claim 6 includes the limitation of "shear stability of 0 to 30." It is the examiner's position that the phrase "shear stability" as such is incomplete and should be replaced with "shear stability index." Appropriate correction is required.
3. Claims 2 and 6 are objected to because of the following informalities:
 - (i) claims 2 and 6 do not end in a period and every claim must end in a period (see MPEP 608.01 (m)).

(ii) claims 2 and 6 are not a single sentence, where each claim must be a single sentence (see MPEP 608.01 (m)). It is the examiner's position that the inclusion of a table in these claims does not meet the requirements of a single sentence.

Appropriate correction is required.

4. Claims 1 and 6 are objected to because of the following informalities: Claims 2 and 6 recite "a viscosity at 100°C between 3 to 15 cSt." However, the applicant fails to disclose the types of viscosity measured (e.g. Kinematic or Brookfield). Appropriate correction is required. For the sake of compact prosecution, the examiner will presume that the measured viscosity is kinematic in the following rejections.

5. Claim 3 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only. See MPEP § 608.01(n). For the sake of compact prosecution, the examiner will presume that "claims 1 and 2" are to be viewed as "claims 1 or 2." Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant

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regards as the invention. Claim 6 first recites the limitation of "a hydraulic oil composition," which implies that only one composition is claimed. However, it is the examiner's position that the applicant then claims seven distinct compositions, each with a separate ISO grade ranging from ISO 15 to ISO 150. The evidence for this is present in the table, which has been improperly included in this claim. In order to produce each ISO grade a different blend of paraffinic oils is required which therefore implies separate compositions. Since the claims appear to describe both a single hydraulic composition and seven separate compositions its scope is therefore deemed to be indefinite.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1, and 3-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Zakarian (US 5,888,946) in view of the evidence given by Watts (US 6,660,695 B2).

Zakarian discloses a hydraulic fluid composition comprised of a base oil mixture and a polymethacrylate viscosity index improver (column 1, lines 5-7; 47-54). The base oil mixture consists of a first paraffinic mineral oil with a kinematic viscosity of 4.0 cSt at 100 degree Celsius (column 2, lines 3, 25-35). The second paraffinic oil has a kinematic viscosity of 7.0 cSt at 100 degrees Celsius (column 2, lines 25-35). The

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weight ratio of the first paraffinic oil to the second is disclosed from 95:5 to 20:80 (column 2, lines 35-37). Zakarian specifically utilizes the first paraffinic oil at 62.95 wt% of the total composition and the second paraffinic oil at 20.00 wt%, which clearly overlaps the instant claims (Table 2, column 4).

The polymethacrylate is further disclosed with a shear stability index of less than about 30, which therefore encompasses the range from 0 to 30 (column 2, lines 50-58). The formula used by the examiner to convert shear stability index of the viscosity improver to shear loss of the composition is disclosed by Zakarian as $SSI = (V_i - V_f) * 100 / (V_i - V_b)$, where SSI is shear stability index, V_i is the initial viscosity in cSt at 100°C of the unsheared fluid, V_f is the final viscosity in cSt at 100°C of the fluid after the 40 minute D5621 shear procedure, and V_b is the viscosity in cSt at 100°C of the fluid without the polymethacrylate viscosity improver (column 2, lines 50-67). Therefore, when V_i is 9.861 cSt and V_b is 7.209 cSt, as disclosed in one embodiment, and SSI is 20, which falls within the range of 0 to 30, V_f is calculated as 9.33 cSt (Table 2, column 4). Therefore the percent loss $[(V_i - V_b) / V_i]$ is found to be 5.38%, which falls within the scope of the claimed shear loss range of less than 7%.

The polymethacrylate viscosity index improver is present in the hydraulic fluid composition from 4 to 8 wt% (column 3, lines 1-3). Zakarian further discloses the specific polymethacrylate utilized as Viscoplex 0-220, which is a trade name produced by Rohmax (column 3, lines 19-23). The evidence provided by Watts shows that Viscoplex 0-220, produced by Rohmax, has a molecular weight less than 175,000 amu,

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which overlaps the instantly claimed range of 10,000 to 1,000,000 (column 14, lines 60-64 of Watts)

Zakarian also discloses additives in the hydraulic fluid composition including corrosion inhibitors, antioxidants, antiwear agents, and a defoamer (column 3, lines 36-45).

Since the composition disclosed by Zakarian is identical to the hydraulic fluid instantly claimed with overlapping viscosities for both paraffinic oils, the total composition would also inherently have the same or better Brookfield viscosity at 0°F and -20°F as a naphthenic oil of the same viscosity grade.

Therefore, Zakarian '946 anticipates the cited present claims.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zakarian (US 5,888,946).

Zakarian, as discussed in paragraph 9 and incorporated here by reference, discloses a hydraulic fluid composition comprised of a first and second paraffinic oil and a polymethacrylate viscosity index improver.

Zakarian does not disclose the ISO grades and corresponding maximum pour point and Brookfield viscosity at 0°F and -20°F of the hydraulic fluid.

Since Zakarian discloses the same composition that is instantly claimed with overlapping ranges of amounts of oil and viscosity index improver, it therefore would have been obvious to one of ordinary in the art to choose any value for these amounts within of the disclosed ranges to produce compositions which encompass the presently claimed ISO grades and their corresponding properties. Since the instant claims do not teach the specific combination of components to produce the separate compositions in the table in claim 2, it is the examiner's position that it would have been prima facie obvious to make the presently claimed compositions by obviously combining different amounts of the oils disclosed by Zakarian.

13. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bloch (US 6,077,455) in view of Zakarian (US 5,888,946).

Bloch discloses a composition comprised of a blend of paraffinic mineral oils, specifically one with a kinematic viscosity of at least 3.8 cSt at 100°C and one with a kinematic viscosity less than 3.8 cSt at 100°C (column 2, lines 44-49; column 3, lines

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10-15, 20-22; column 4, lines 10-20). The viscosity index of the paraffinic mineral oils is disclosed as greater than 90, which clearly overlaps the instant claim (column 4, line 15). Furthermore, Bloch discloses a viscosity modifier, preferably a polymethacrylate, in the composition from 4 and 10 wt%.

Bloch does not disclose (i) the composition as a hydraulic fluid, (ii) the wt% base on the total composition of each paraffinic oil, (iii) the ISO grades and corresponding maximum pour point and Brookfield viscosity at 0°F and -20°F of the hydraulic fluid, and (iv) the shear stability index of the viscosity index improver.

With respect to (i) above, in the instant claims “hydraulic oil” is an intended use phrase and is therefore given no patentable weight. The examiner’s position is supported by case law, which holds that “where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention, the preamble is not a claim limitation.” *Rowe v. Dror*, 112 F.3d 473, 478, 42 USPQ2d 1550, 1553 (Fed. Cir. 1997) and MPEP 2111.02.

With respect to (ii) above, Bloch discloses a blended oil composition, but is silent as to the specific amount of each oil. Bloch does disclose that the composition be produced so that the final composition has a Brookfield viscosity at -40°C of less than 18,000 cP (column 14, lines 3-8).

Zakarian, as discussed in paragraph 9 and incorporated here by reference, discloses a composition comprised of blended paraffinic oils and a polymethacrylate viscosity index improver. The composition disclosed by Zakarian is also produced so that the final composition has a Brookfield viscosity at -40°C of less than 20,000 cP

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(column 2, lines 41-44). The blended oils are present in the composition from 95:5 to 20:80 wt% of the first paraffinic oil to the second.

Since Bloch and Zakarian both disclose identical components in a composition so that the final compositions have a Brookfield viscosity with overlapping ranges, it would have been obvious for Bloch to utilize the same wt% of each paraffinic oil to obtain the Brookfield viscosities.

With respect to (iii) above, since the combination of Bloch and Zakarian disclose the same composition that is instantly claimed with overlapping ranges of oil and viscosity index improver, it therefore would have been obvious to one of ordinary in the art to choose any combination of oils having amounts within the disclosed ranges to produce the claimed compositions. Since the instant claims do not teach the specific combination of components to produce the separate compositions in the table in claim 6, it is the examiner's position that it would have been prima facie obvious to make the presently claimed compositions by obviously combining different amounts of the oils disclosed by Zakarian.

With respect to (iv) above, Bloch discloses, in one test result, an initial viscosity at 100°C of 7.90 cSt (Table 2-continued, column 15). The kinematic viscosity of the used fluid (after shearing) was found to be 7.40 cSt at 100°C (column 13, lines 32-33; Table 2-continued, column 15). Therefore, the shear loss from the initial viscosity to the final is 6.33% $([7.90-7.40]/7.90)$, which clearly overlaps the instant range of less than 7%. Since shear loss and shear stability are related as given by the formula $SSI = (V_i - V_f) * 100 / (V_i - V_b)$, where SSI is shear stability index and $V_i - V_f$ is shear loss

(column 2, lines 50-67 of Zakarian). Therefore, since Bloch produces a shear loss that meets the instant claim limitations and shear loss and shear stability index are proportionally related, it would have been obvious to produce a composition that also meets the shear stability index instant limitations.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy T. Lang whose telephone number is 571-272-9057. The examiner can normally be reached on M-F 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

9/12/2006

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